

180DC X PLEDGEBALL

CLIENT MEETING

PLEDGE SUBMISSION ANALYSIS

for Sustainability Expansion

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Pre-Match Warmup

Over the span of two months, our team conducted a detailed analysis of Pledgeball's fan engagement data. This involved data cleaning, exploratory analysis, and visualisation to uncover patterns of fan sustainability engagement.

- ▶ **Scope:** We aimed to analyse Pledgeball's fan engagement data and use these insights to help prioritise expansion efforts and maximise the impact of carbon reduction.
- ▶ **Deliverables:** A report documenting the methodology used and key findings, a presentation summarising the insights, and an interactive Tableau dashboard for further analysis.

Overview of Data

- ▶ Given dataset timeframe is between July 2020 - January 2025
- ▶ Number of records : 219,026 total fan pledges

Club	Pledge	Event	Demographic
<ul style="list-style-type: none">• Football club• League Type	<ul style="list-style-type: none">• Description of pledge action• Estimated carbon savings	<ul style="list-style-type: none">• Date• Location• Submission Timestamps	<ul style="list-style-type: none">• Age• Gender• Location of pledges

- ▶ Some few missing values (minor stadium name data gaps) and some outliers
- ▶ We have cleaned the data set and updated it into a new excel sheet

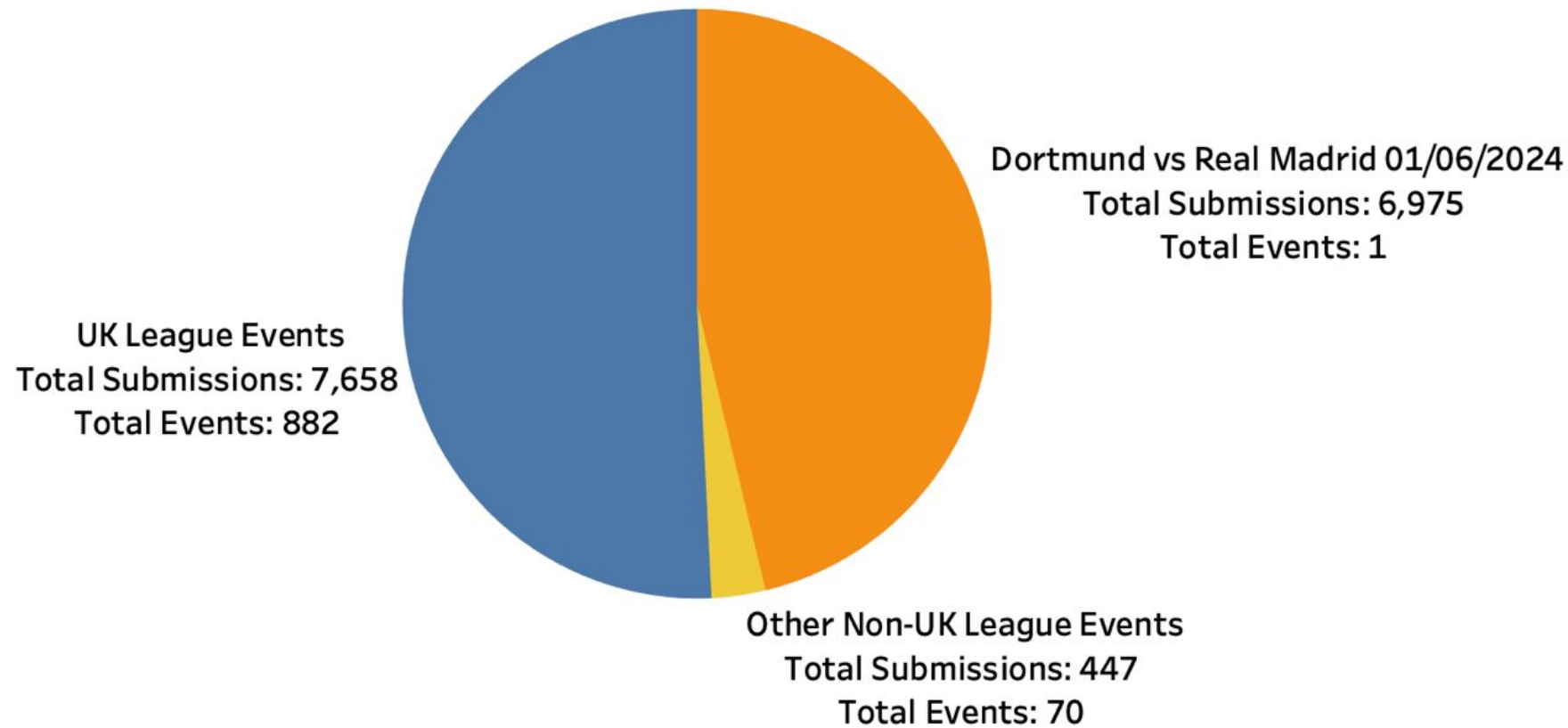
Overview of Data

TOTAL EVENTS	TOTAL UNIQUE SUBMISSIONS	TOTAL PLEDGES
• 953	• 15080	• 219026

- ▶ We found an unusually high number of submissions for the Madrid vs Dortmund match at Wembley and omitted this outlier in our analysis.
- ▶ We identified UK teams and selected only those teams/leagues to create a specific analysis.

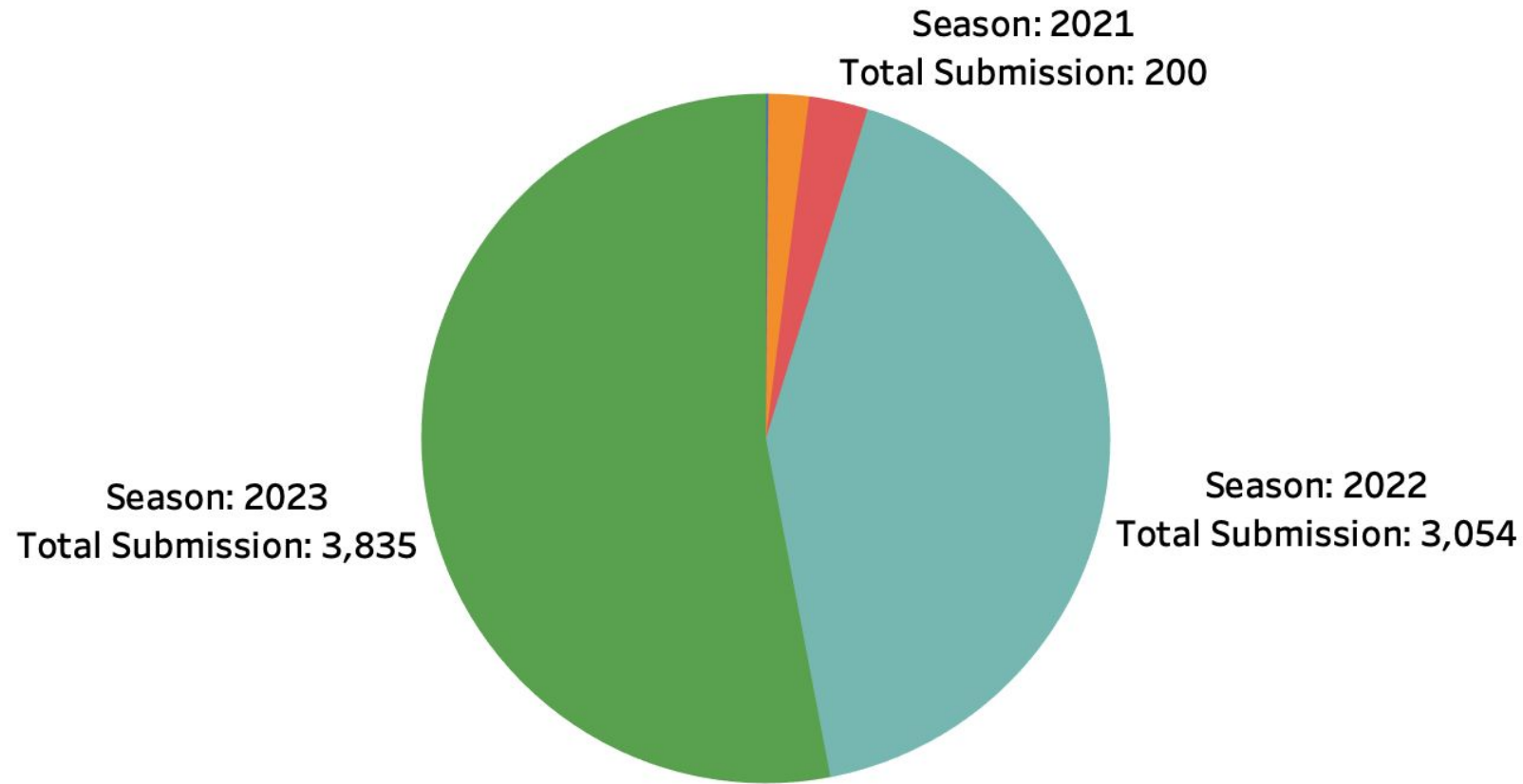
Initial Analysis

Total Submissions by UK/ Non-UK Leagues/ Champions League Final



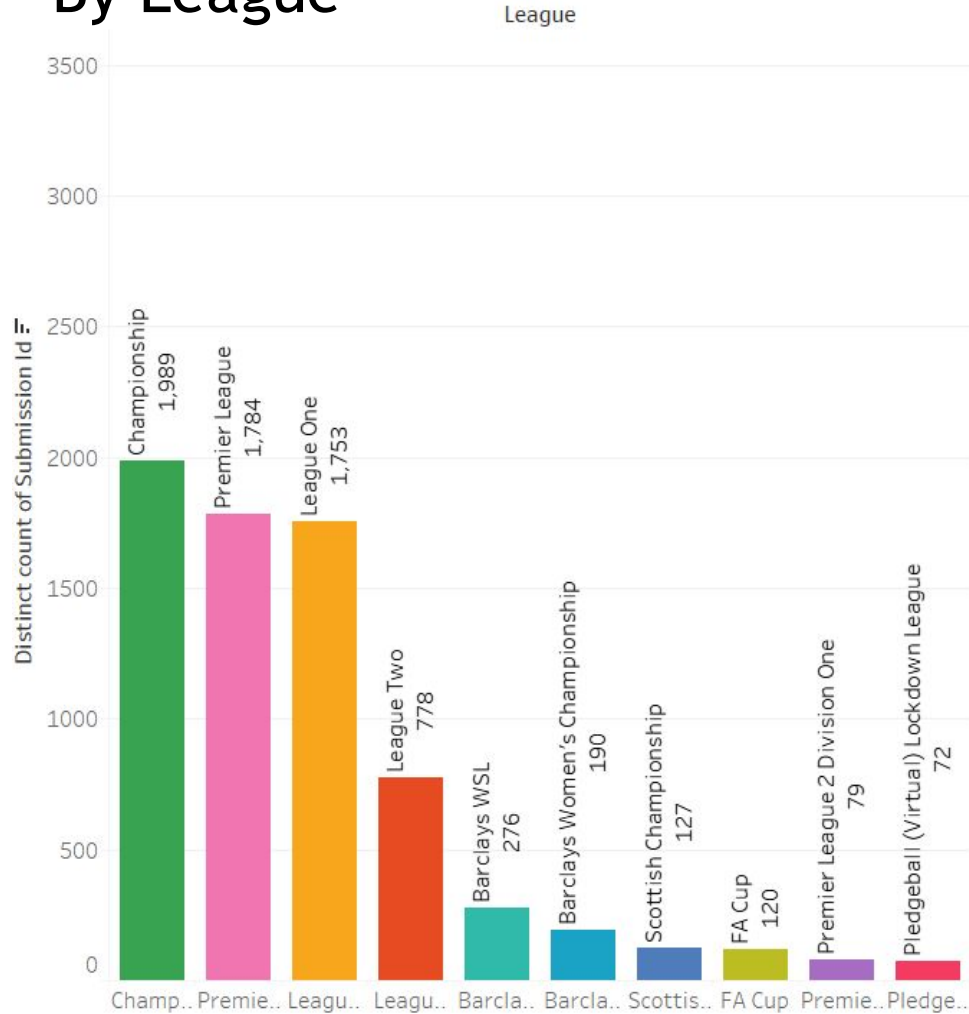
Demographics of Total Submissions

Football Seasons (2019 - 2023)



Demographics of Total Submissions

By League

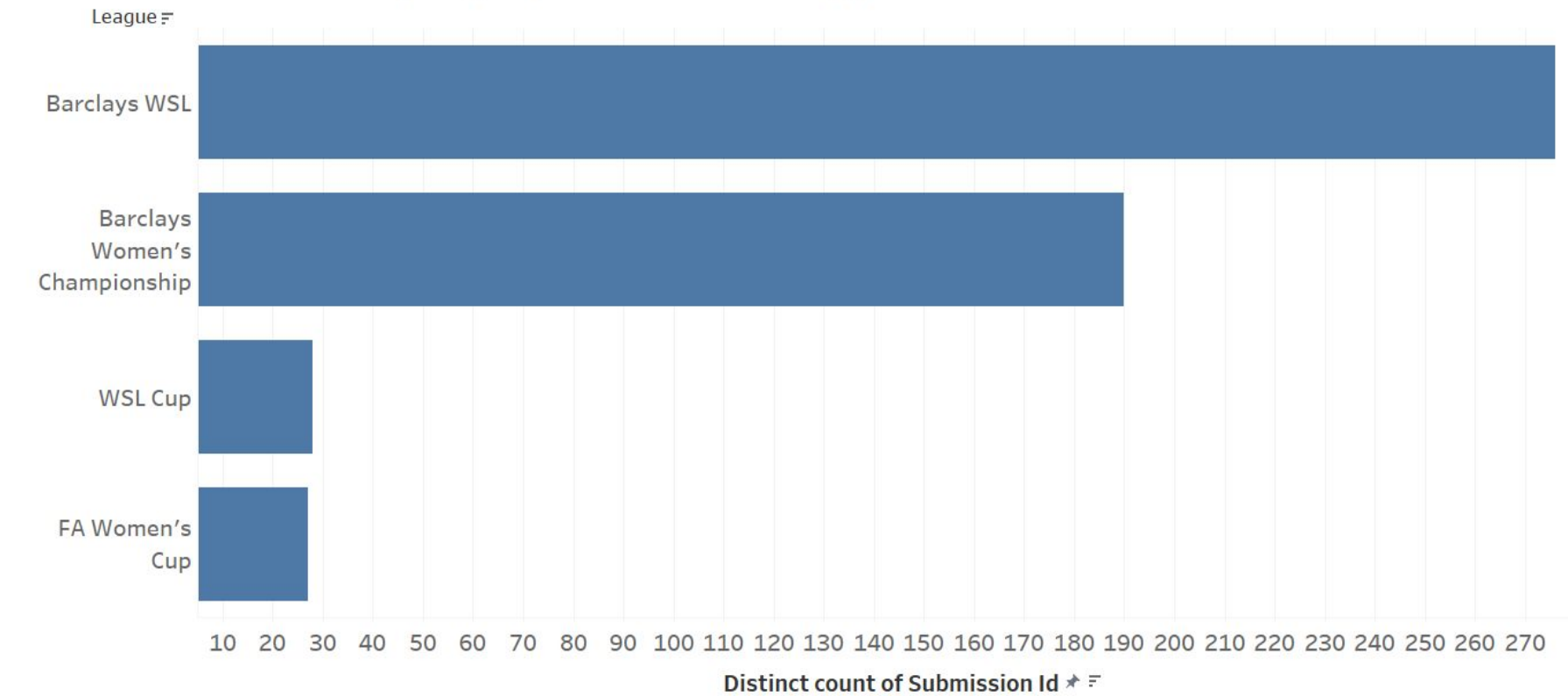


- ▶ Highest submissions in Championship League, followed by Premier League, League One and League Two.
- ▶ Suggestion: Potential targeting for future campaigns based on league-specific popularity.

Demographics of Total Submissions

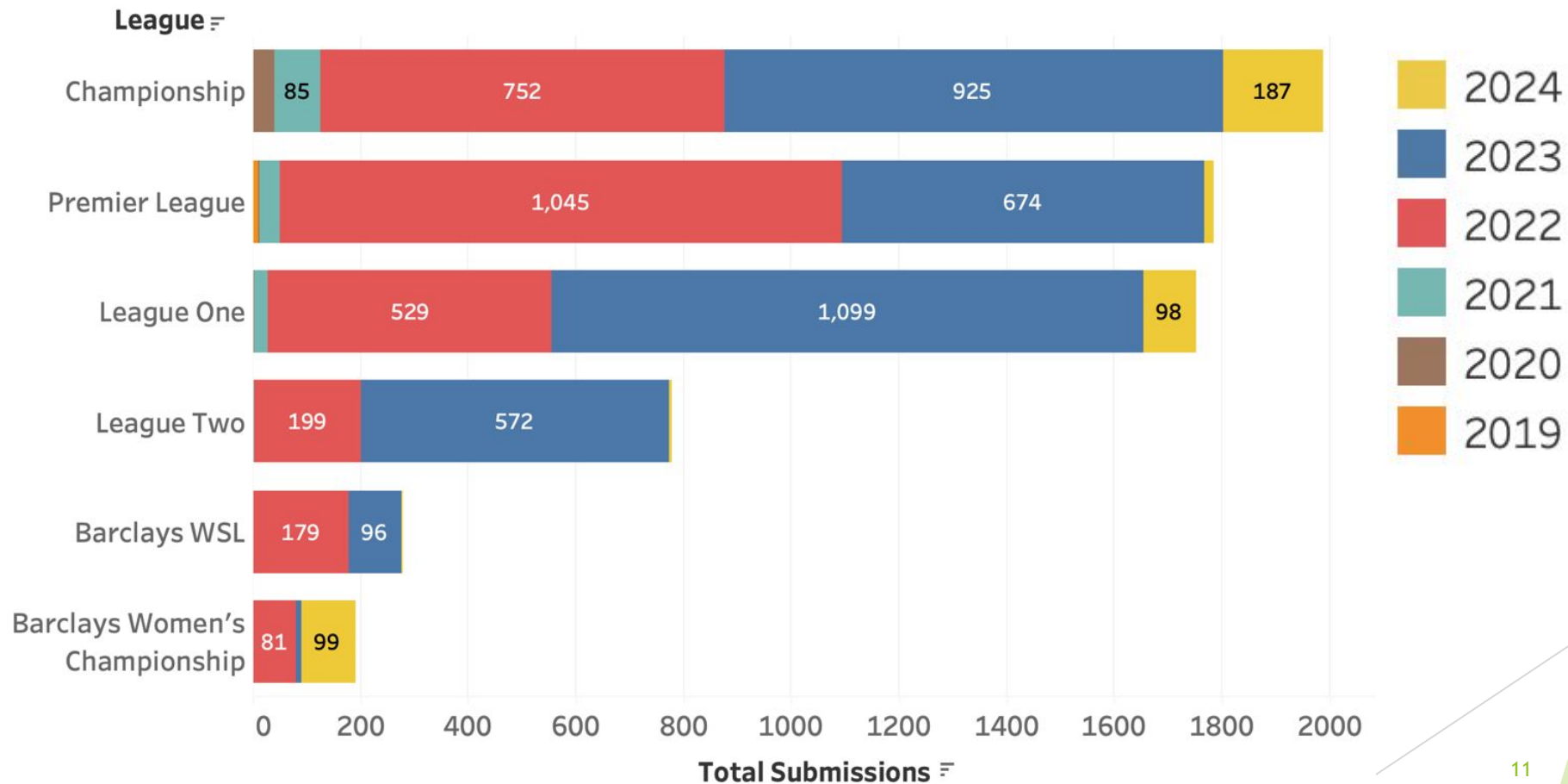
Women's Leagues

Number of submissions by league (women's teams only)



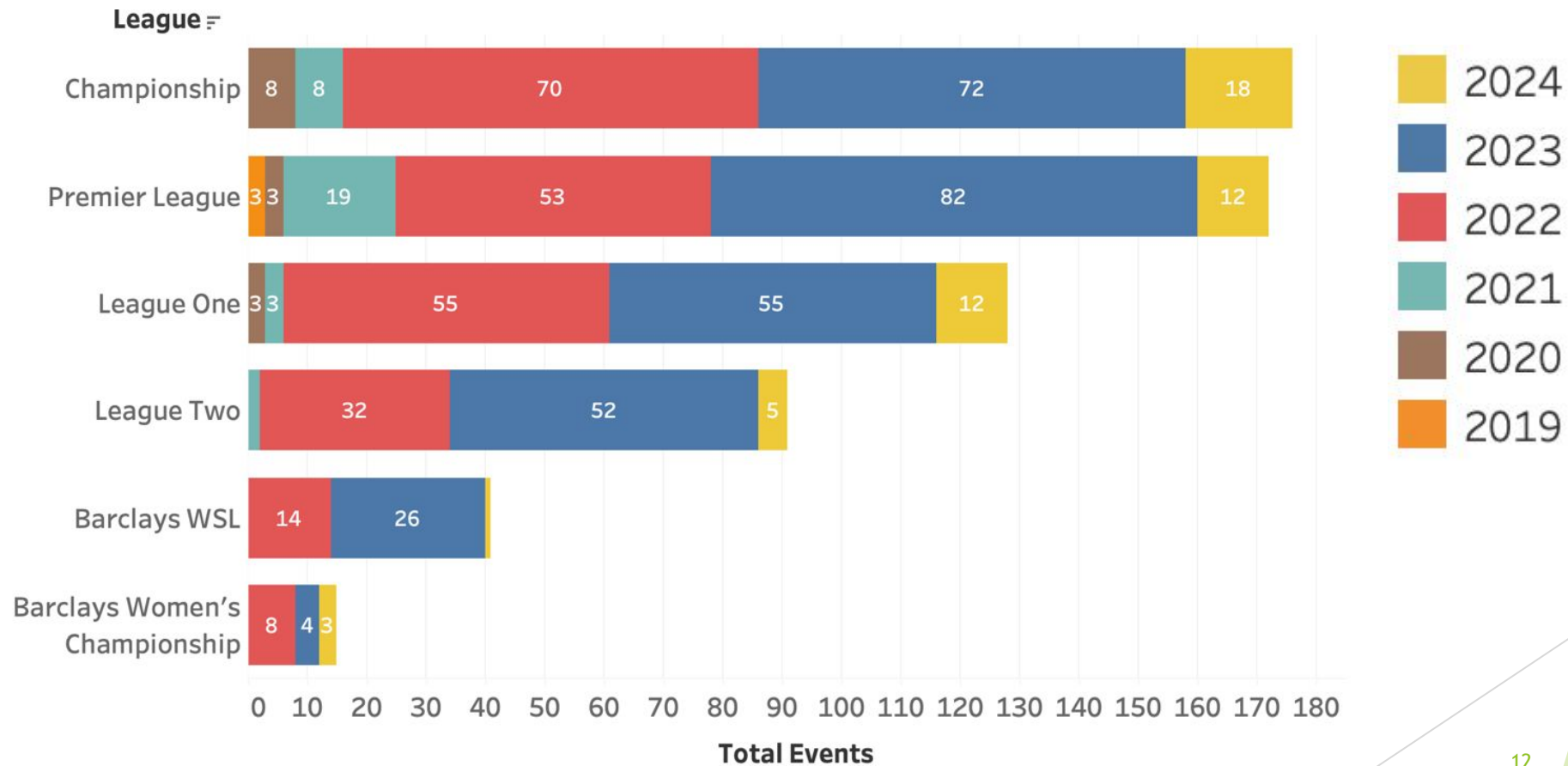
Demographics of Total Submissions

Total submissions of the top 6 leagues colour-coded by season



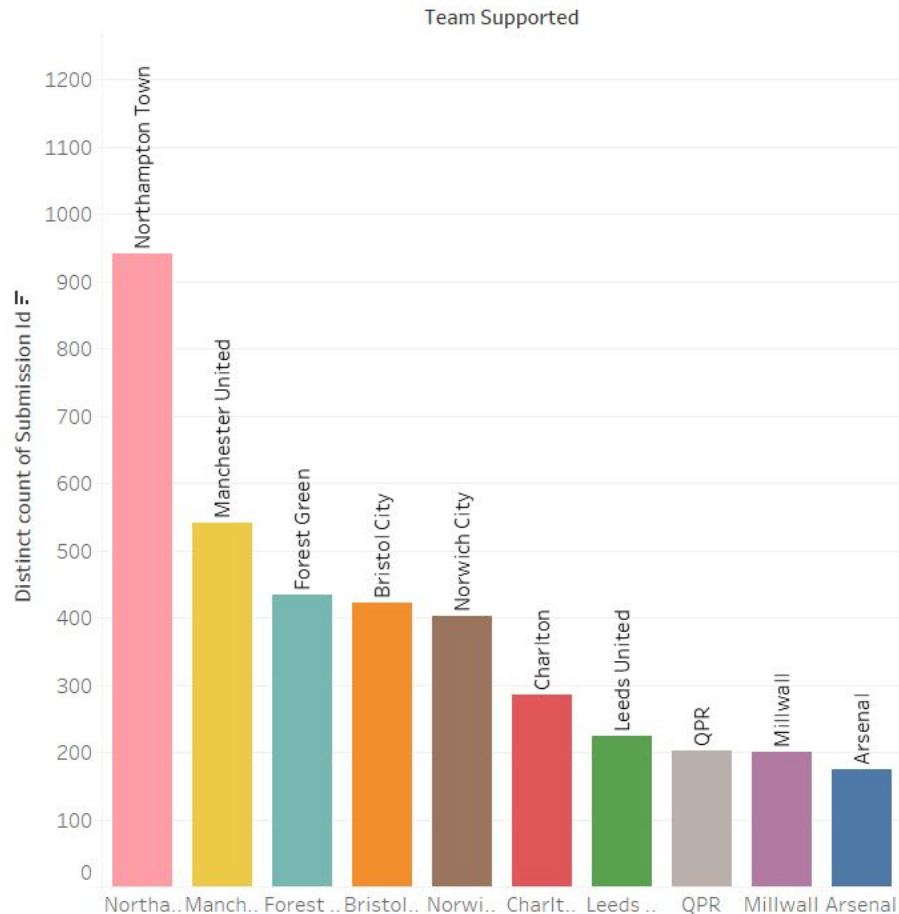
Demographics of Total Submissions

Number of events submitted for, for each league



Demographics of Total Submissions

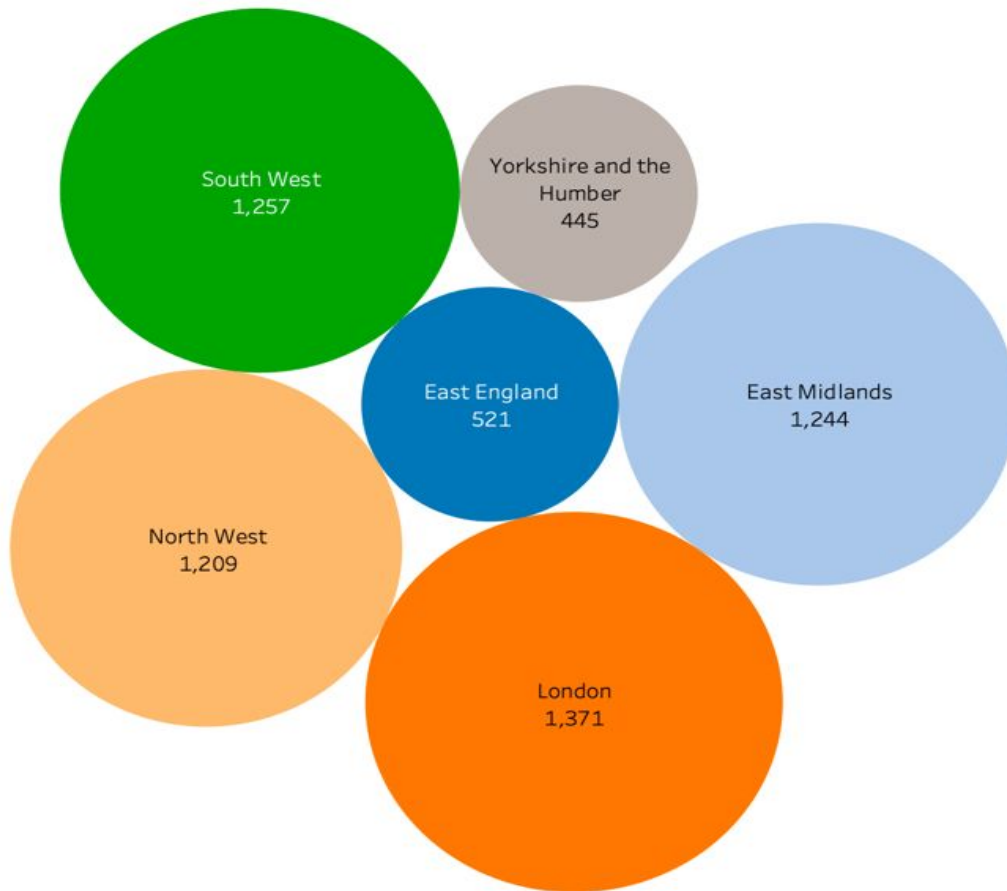
By Football Clubs



- ▶ Top 5 most engaged UK teams: Northampton Town, Manchester United, Forest Green, Bristol City, and Norwich City
- ▶ The top 5 teams account for 35% of the unique submissions
- ▶ Only 1 team in the top 5 is in the Premier League, which is Manchester United
- ▶ High engagement from smaller clubs signals dedicated fan bases, offering strategic expansion opportunities

Demographics of Total Submissions

By Region

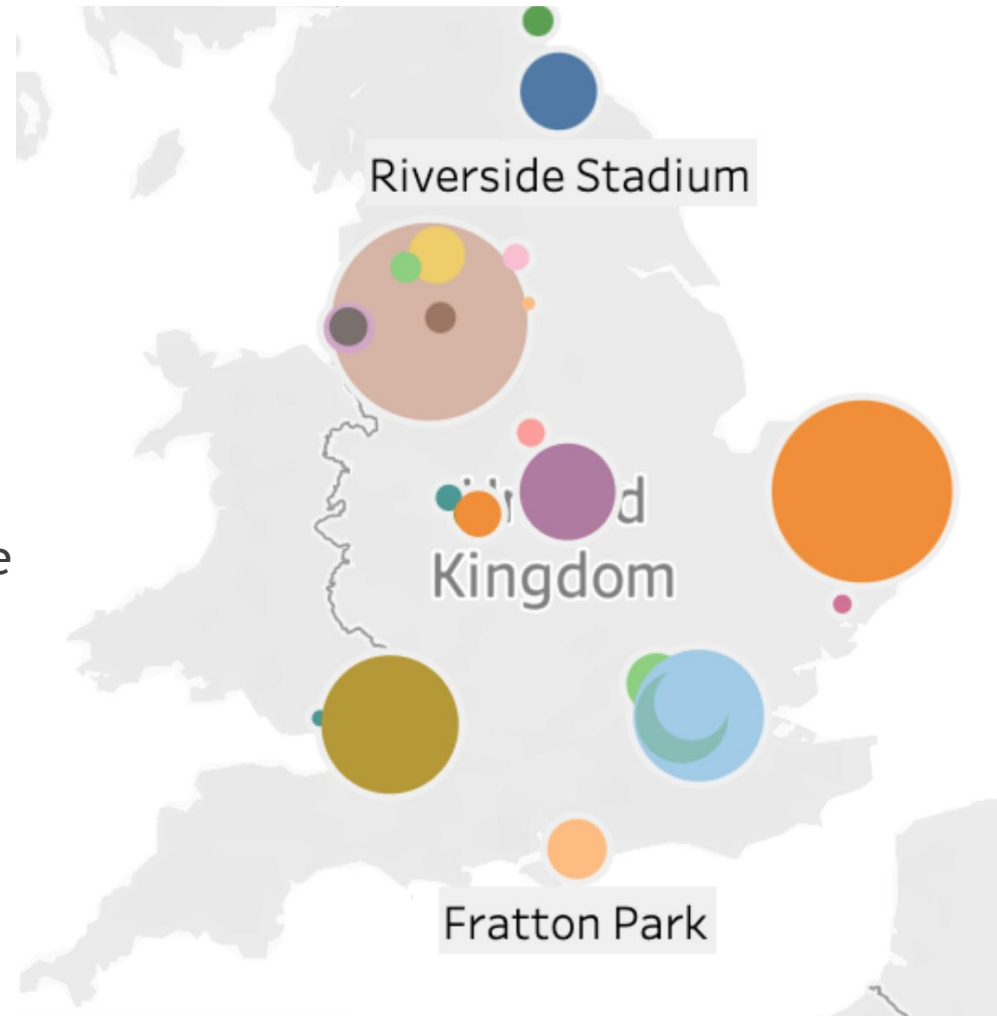


- ▶ Most engaged regions of the UK are Scotland, North/South-West, and London
- ▶ All the submissions are spread across large and smaller clubs, despite having a number of particularly large clubs in these regions
- ▶ Potential to capitalise on regional campaigns leveraging local enthusiasm

Demographics of Total Submissions

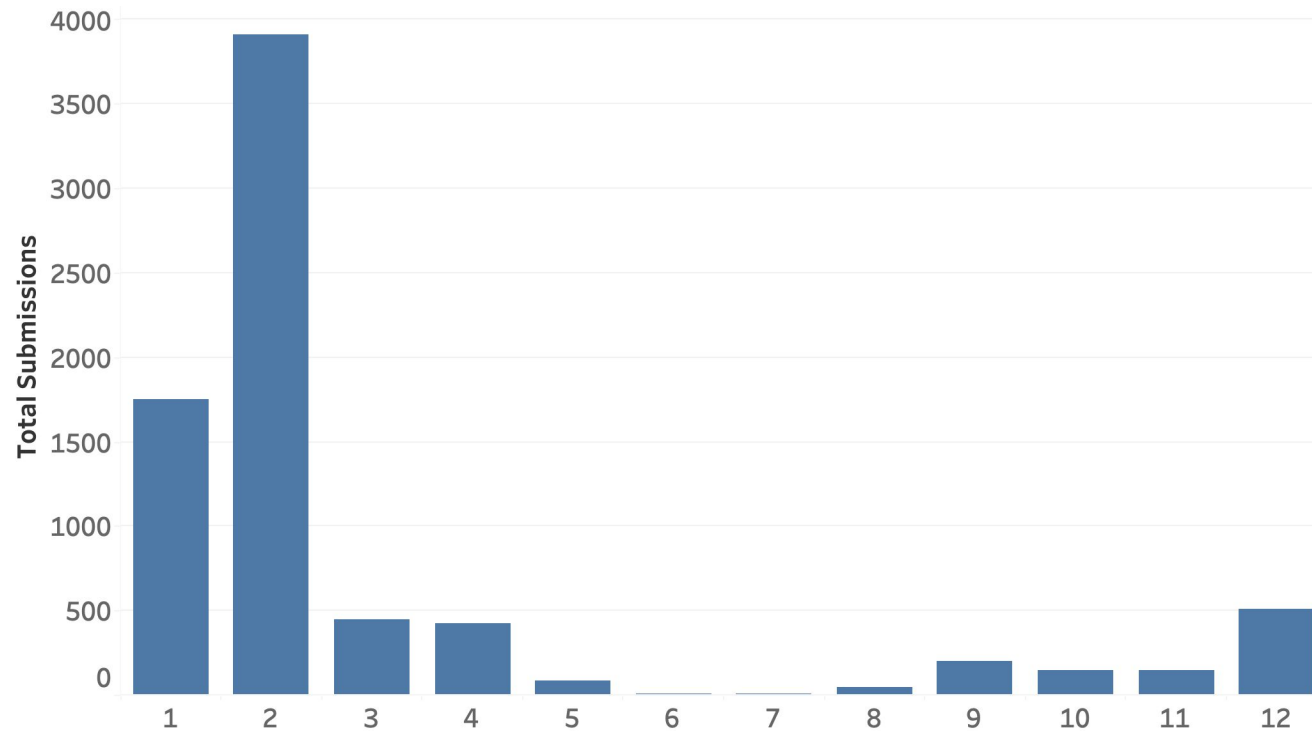
By Stadium

- ▶ High engagement is seen in London, with big teams like Chelsea and Arsenal, but most notably from Millwall, a smaller Championship team
- ▶ Multiple contributing clubs in the North, specifically Manchester United
- ▶ Notable outliers:
 - Bristol City
 - Norwich City



Temporal Analysis

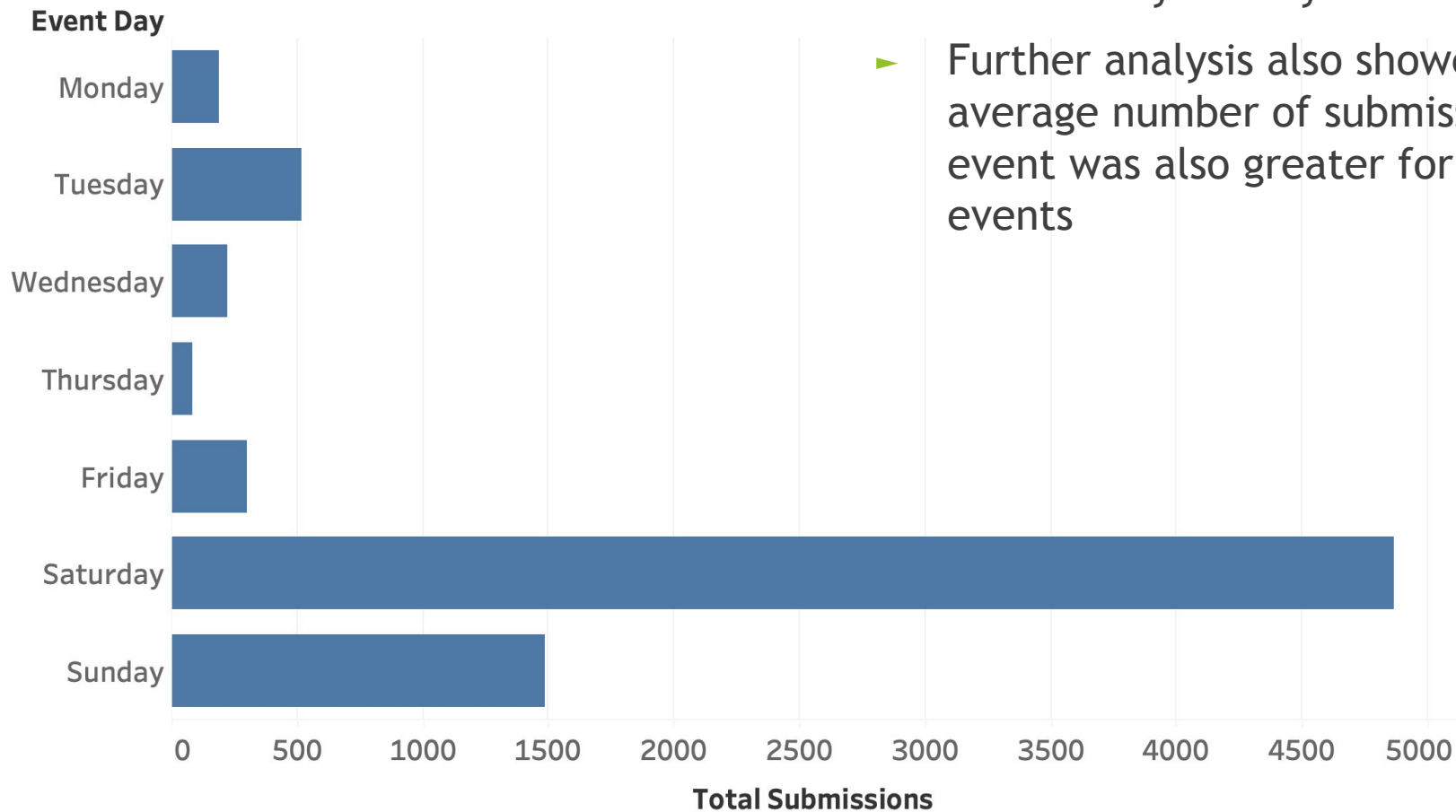
By Month



- ▶ More submissions during the months of January and February (Winter and Spring)
- ▶ Low activity towards June and July (Summer)
- ▶ Slowly gaining more submissions towards August (Autumn)
- ▶ Mainly because of international breaks and season periods

Temporal Analysis

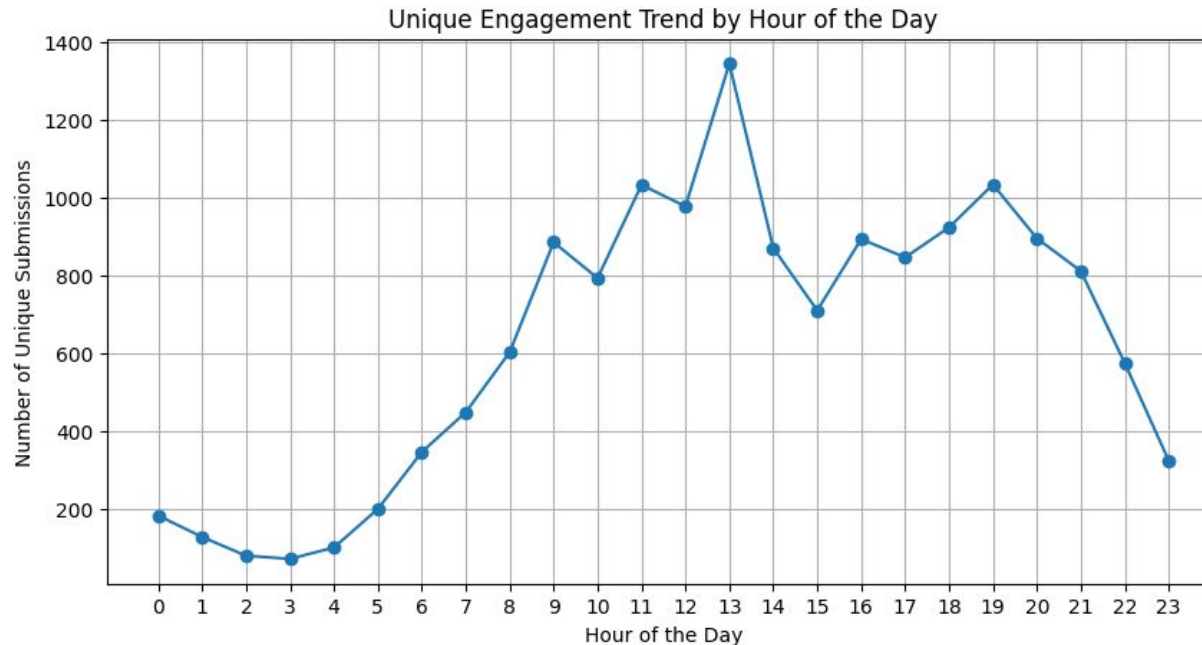
By Days of the Week



- ▶ The large majority of events submitted for were on Saturday, followed by Sunday
- ▶ Further analysis also showed that the average number of submissions per event was also greater for weekend events

Temporal Analysis

Hour of Day

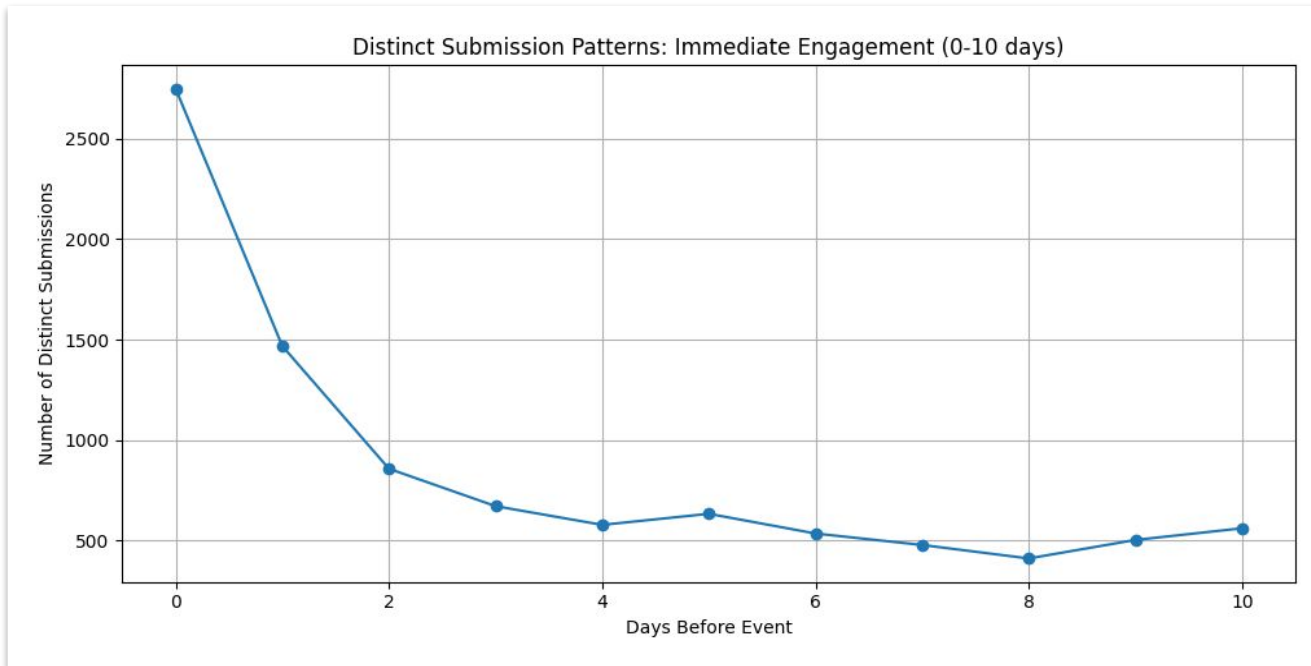


- ▶ Lowest engagement overnight (12-6AM)
- ▶ Sharp increase from 7 AM, peak at noon
- ▶ Second peak around 7PM (evening hours)
- ▶ Engagement drops rapidly after 9PM

- **Recommendation:** Noon and evening (7 PM) should be targeted for maximum engagement.

Temporal Analysis

Days Before Event (0-10 Days)

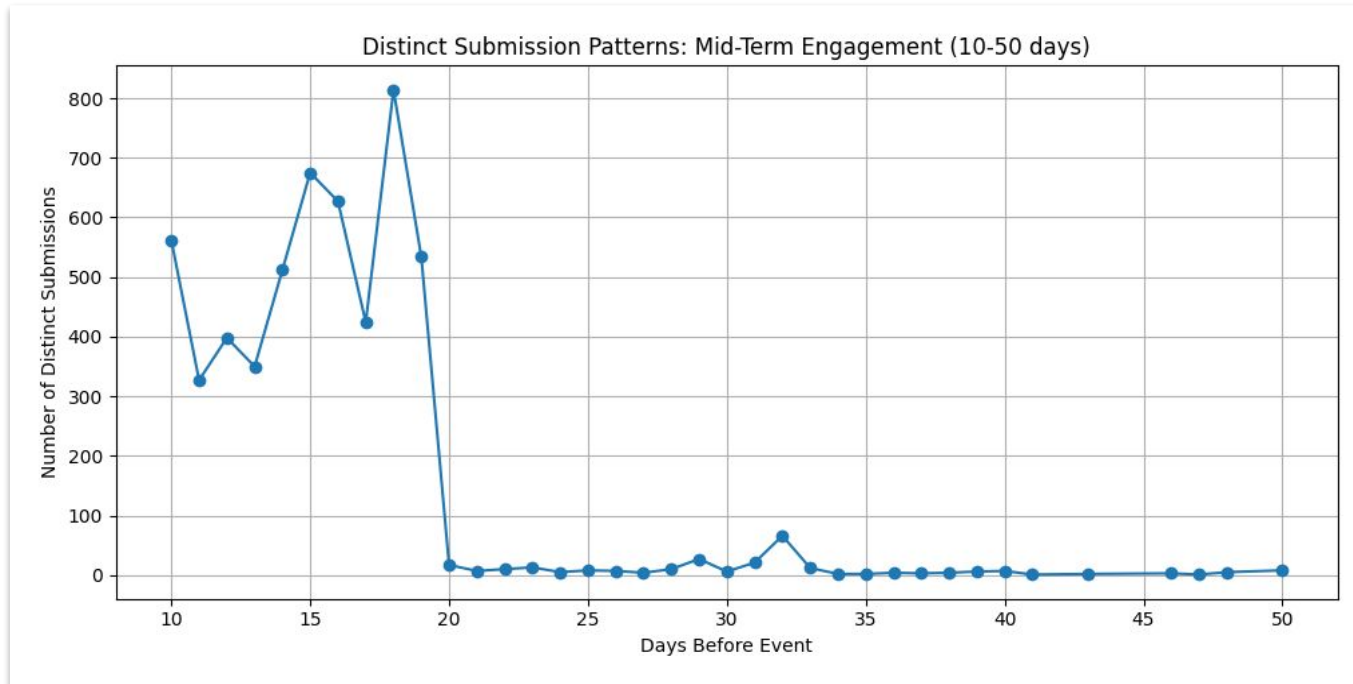


- ▶ Highest submissions occur on the event day (Day 0)
- ▶ Submissions decrease rapidly as days before the event increase

- **Recommendation:** Intensify promotion close to or on event days.

Temporal Analysis

Days Before Event (10-50 Days)



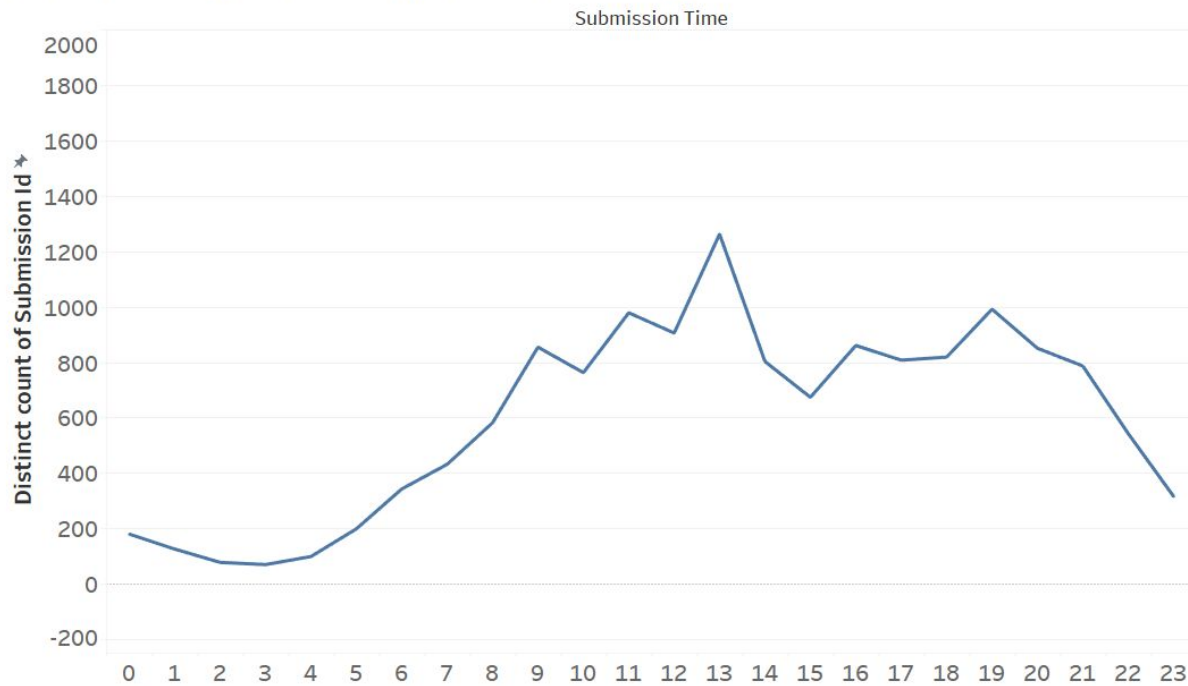
- ▶ Noticeable rise in submissions around 15-20 days before events
- ▶ Engagement significantly drops and becomes minimal after the 20-day mark

- **Recommendation:** Schedule reminders/promotions around 2-3 weeks before events to capture mid-term pledges.

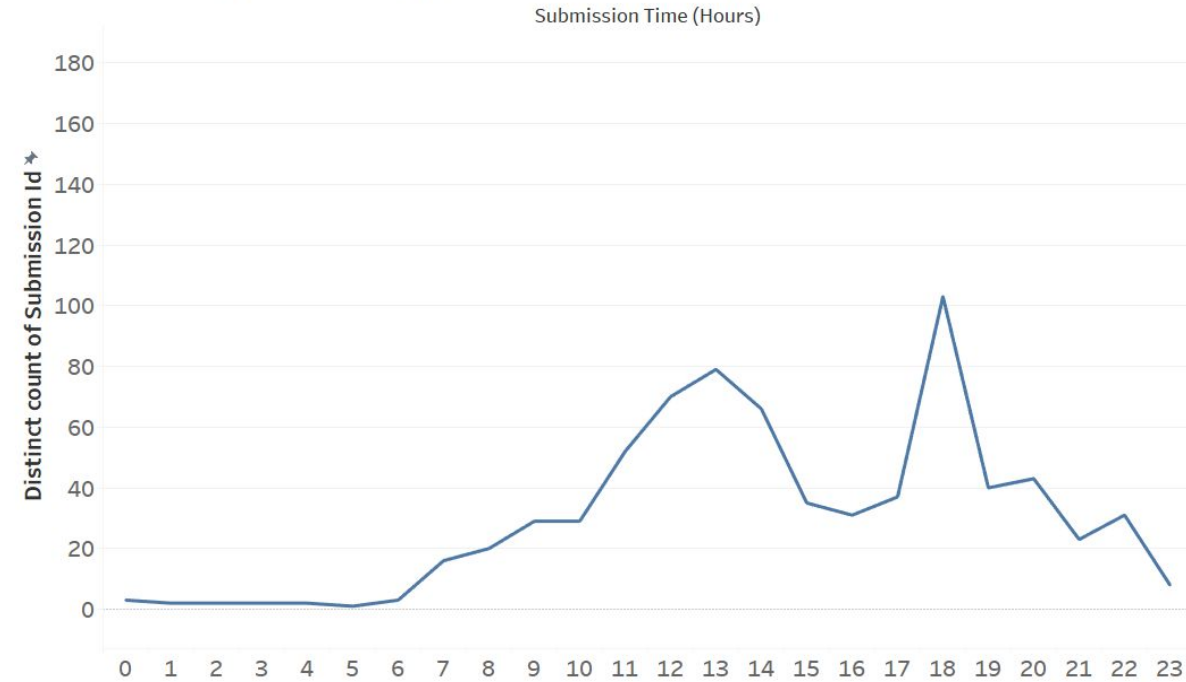
Temporal Analysis

Gender Disparity

Submissions by time of day (Men's teams only)



Submissions by time of day (Women's teams only)



Research into Notable Teams

Northampton Town - Pledgeball Trophy Winners	Bristol City - Season-Long Campaign & "Double" Win	Forest Green Rovers (FGR)
<ul style="list-style-type: none">• Integrated Pledgeball in matchdays, school programmes, and community events.• Incentives: Reusable cup scheme, half-price carpool parking, and public recognition.	<ul style="list-style-type: none">• Weekly Pledgeball fixtures, prize draws (signed shirts, hospitality).• Late-season surge overtook rivals to secure victory.	<ul style="list-style-type: none">• Vegan matchday food, green energy, eco campaigns embedded in club culture.• Fan competitions (e.g., Derby Day challenges), Q&A events with Pledgeball founder.

Recommendations for Future Research

Data Cleaning

- What it is and how to reproduce it for future research

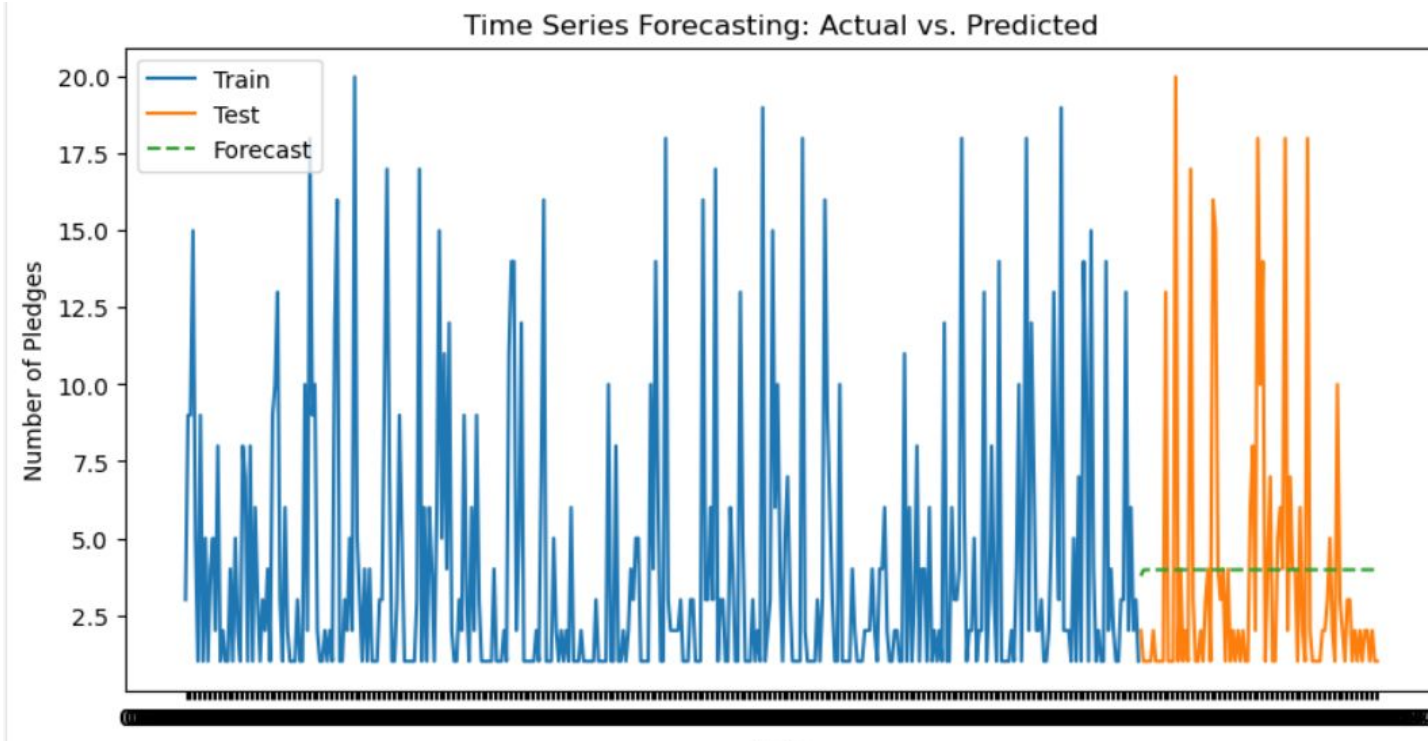


pledge_id	submission_id	event_id	submission_date_and_event_date	league	team	team_gender	event_stadium	season	pledge_description	co2e_of_pledge	pledge_category	
1	1	1	06/07/2020 12:11	05/07/2020	Premier League	Aston Villa	Men's	Anfield	2019	Use recycled toilet paper	4.2	Personal Hygiene
2	1	1	06/07/2020 12:11	05/07/2020	Premier League	Aston Villa	Men's	Anfield	2019	Do a litter pick on your s	-1	Great outdoors
3	1	1	06/07/2020 12:11	05/07/2020	Premier League	Aston Villa	Men's	Anfield	2019	Defrost your freezer and	-1	Home eco
4	1	1	06/07/2020 12:11	05/07/2020	Premier League	Aston Villa	Men's	Anfield	2019	Switch to energy efficien	36.6	Home electronics
5	2	2	13/07/2020 16:08	12/07/2020	Premier League	Arsenal	Men's	Tottenham Hotspur Sta	2019	Go vegan for two days a	295.1	Diet
6	3	3	26/07/2020 15:43	26/07/2020	Premier League	Manchester United	Men's	King Power Stadium	2019	Use recycled toilet paper	4.2	Personal Hygiene
7	3	3	26/07/2020 15:43	26/07/2020	Premier League	Manchester United	Men's	King Power Stadium	2019	Calculate your carbon f	-1	Carbon footprint

Recommendations for Future Research

Statistical Modelling

- What it is and why it didn't work for the Pledgeball submissions data



Recommendations for Future Research

Other ideas

- Submissions per event - what it is any why we think it would be an insightful area for future researchers investigating Pledgeball submissions data

15.8 Mean
Submissions Per
Event

2 Median
Submissions Per
Event

Conclusion

Key Takeaways

- ▶ Insightful **temporal analysis** that can be used to schedule marketing and social media campaigns
- ▶ **Championship League** stands out as the most locally engaged men's league, while **Barclays WSL** leads in fan engagement among women's leagues
- ▶ **Effective team-led initiatives**, such as Northampton Town's community integration, Bristol City's season-long campaign with incentives, and Forest Green Rovers' sustainability-driven approach
- ▶ Lastly, the interactive dashboard can be viewed through this link:
https://public.tableau.com/views/Deliverable1_17424686442650/PledgeSubmissionsAnalysisDashboard?:language=en-US&:sid=&:display_count=n&:origin=viz_share_link

QUESTIONS?